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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,032	04/27/2001	Atsushi Tanaka	43890-510	7215

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EXAMINER

FERGUSON, KEITH

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/843,032

Applicant(s)

TANAKA ET AL.

Examiner

Keith T. Ferguson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10 and 13-19 is/are rejected.
- 7) ☒ Claim(s) 5, 11 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "**means**" and "**said**," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claims 6,16 and 17 recites wherein said input and output means is a universal serial communication interface. There is insufficient antecedent basis for this limitation in the claim.

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Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 7-9 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Lochner et al., newly recited reference.

The claimed invention read on Lochner et al. as follows:

Regarding claims 1 and 13, Lochner et al. discloses a wireless display system (fig. 1) composed of an image display device (personal computer) (fig. 1 number 2) and a data processing device (input and output unit) (4) connected through wireless communication elements (transceivers) (fig. 2 numbers 24 and 14), said wireless display system (fig. 1) comprising: data input and output port (directional coupler) (fig. 2 number 38) means for input and output of data in and from said image display device (paragraph 0035), input and output data

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converting elements (modulators and demodulators) (fig. 2 numbers 34, 44, 46 and 64) for converting data format and protocol in said wireless communication elements (transceiver) (fig. 2 numbers 24 and 14 paragraph 0030 and paragraph 0031), and input and output processing virtual element (CPU) for making virtual data input and output process in said data processing device if the data input and output port were connected directly (paragraph 0040 through paragraph 0044), wherein said data input and output port (fig. 2 numbers 38) and input and output data converting elements (fig. 2 numbers 64 and 36) are provided in said image display device (fig. 2 number 14), said input and output processing virtual elements (CPU) is provided at said data processing device side (paragraph 0040 through paragraph 0044), and all data input data and output data communicates between said image display device and data processing device are mutually transmitted and received through said input and output data converting elements and input and output processing virtual elements (paragraph 0029 through paragraph 0031, paragraph 0033 through paragraph 0037 and paragraph 0040 through paragraph 0043).

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Regarding claim 7, Lochner et al. discloses a card reader for reading a graphics card to be presented on a display (paragraph 0042).

Regarding claim 8, Lochner et al. discloses steps (method) of communication of wireless display system having said image display device and data processing device (paragraph 0029 through paragraph 0043) comprising the steps of: (a) entering and producing data in and from said image display device, (paragraph 0035) (b) converting data format and protocol in the wireless communication (paragraph 0036), and (c) processing input and output in said data processing device virtually as if data input and output processing were done directly (paragraph 0033 through paragraph 0036), wherein step (a) and step (b) are done at the image display device side (paragraph 0035), step (c) is done at the data processing device side (paragraph 0033 and paragraph 0034), and all communication data between said image display device and data processing device is processed at step (b) and step (c) (paragraph 0029 through paragraph 0036), and is mutually transmitted and received (paragraph 0011 and paragraph 0029 through paragraph 0036).

Regarding claim 9, Lochner et al. discloses a computer program recording medium for executing communications of wireless display system having said image display device and data processing device (paragraph 0029 through paragraph 0043) comprising the programs for: (a) entering and producing data in and from said image display device (paragraph 0035), (b) converting data format and protocol in the wireless communication (paragraph 0036), and (c) processing input and output in said data processing device virtually as if data input and output processing were done directly (paragraph 0033 through paragraph 0036), wherein program (a) and program (b) are executed at the image display device side (paragraph 0035), and program (c) is executed at the data processing device side (paragraph 0033 and paragraph 0034), and all communication data between said image display device and data processing device is transmitted and received by execution of program (paragraph 0029 through paragraph 0036) (b) and program (c) (paragraph 0029 through paragraph 0036).

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 2,4,14,18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lochner et al. in view of Son et al. and Mayo et al., newly recited reference.

Regarding claims 2 and 4, Lochner et al. discloses a wireless display system as discussed supra in claims 1. Lochner et al. differs from claims 2 and 4 of the present invention in that it does not explicit disclose a power saving control means, and said power saving control means sets the image display device in first power saving mode when the image display device is not operated for a specific time, and said power saving control means sets said display means and operating means in power saving state in the first power saving mode. Son et al. teaches a wireless display device comprising a power saving control means (col. 4 lines 32-67), and said power saving control means sets the image display device in first power saving mode when the image display

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device is not operated for a specific time (col. 4 lines 32-67), and said power saving control means sets said display means (display) and operating means (keypad) in power saving state in the first power saving mode (col. 4 lines 32-67). Mayo et al. teaches a laptop computer, cellular telephone and PDA that have power consumptions (col. 1 lines 15-27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lochner et al. wireless communication system with a power saving control means, and said power saving control means sets the image display device in first power saving mode when the image display device is not operated for a specific time in order for the wireless personal computer within the wireless system to go to sleep when there is no input from the input/output unit, which saves the wireless personal computer battery when there is no communication, as taught by Son et al..

Regarding claim 14, Lochner et al. discloses the data from said data input and output means is used for connection verification in wireless connection between the data processing device and image display device (paragraph 0011).

Regarding claims 18 and 19, Lochner et al. discloses a card reader for reading a graphics card to be presented on a display (paragraph 0042).

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7. Claims 3, 10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lochner et al. in view of Son et al. and Mayo et al. as applied to claims 1 and 2 above and in further view of Adachi et al..

Regarding claims 3 and 10 the combination of Lochner et al., Son et al. and Mayo et al. differs from claims 3 and 10 of the present invention in that they do not explicitly disclose said power saving control means sets the image display device in second power saving mode for saving more power than in first power saving mode when the image display device in first power saving mode, and the data input and output is not used for a specific time. Adachi et al. teaches a power saving termination key (fig. 1 number 44 and its description) which sets the image display device in second power saving mode (off mode) for saving more power than in first power saving mode when the image display device in first power saving mode (fig. 1 number 44 and its description). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Lochner et al., Son et al. and Mayo et al. with said power saving control means sets the image display device in second power saving mode for saving more power than in first power saving mode when the image display device in first power saving mode, and the data input and output is not used for a specific time in order to for the wireless personal computer within the wireless system to be turned off to save power when no data input is communicated from the input/output unit, as taught by Adachi et al..

Regarding claim 15, Lochner et al. discloses the data from said data input and output means is used for connection verification in wireless connection between the data processing device and image display device (paragraph 0011).

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lochner et al. in view of Suzuki, newly recited reference.

Regarding claim 6, Lochner et al. discloses a wireless display system as discussed supra in claims 1. Lochner et al. differs from claim 6 of the present invention in that it does not disclose said data input and output port is a serial

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communication interface. Suzuki teaches a notebook PC which interconnect with a cellular telephone using a Universal serial Bus (paragraph 0092). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lochner et al. with said data input and output port is a serial communication interface in order for the wireless personal computer and the input/output unit to bilateral communicate with each other, as taught by Suzuki.

9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lochner et al. in view of Son et al. and Mayo et al. as applied to claims 1 and 2 above and in further view of Suzuki.

Regarding claim 16, the combination of Lochner et al., Son et al. and Mayo et al. differs from claim 16 of the present invention in that they do not disclose said data input and output port is a serial communication interface. Suzuki teaches a notebook PC which interconnect with a cellular telephone using a Universal serial Bus (paragraph 0092). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Lochner et al., Son et al. and Mayo et al. with said data input and output port is a serial communication interface in order for the wireless personal computer and the input/output unit to bilateral communicate with each other, as taught by Suzuki.

10. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lochner et al. in view of Son et al., Mayo et al. and Adachi et al. as applied to claims 1, 2 and 3 above and in further view of Suzuki.

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Regarding claim 17, the combination of Lochner et al., Son et al., Mayo et al. and Adachi et al. differs from claim 17 of the present invention in that they do not disclose said data input and output port is a serial communication interface. Suzuki teaches a notebook PC which interconnect with a cellular telephone using a Universal serial Bus (paragraph 0092). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Lochner et al., Son et al., Mayo et al. and Adachi et al. with said data input and output port is a serial communication interface in order for the wireless personal computer and the input/output unit to bilaterally communicate with each other, as taught by Suzuki.

Allowable Subject Matter

11. Claims 5, 11 and 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 5, 11 and 12, the prior art of record fails to teach or suggest, alone or in combination wherein said wireless communication means comprises means for measuring the communication rate of all data including the image data transmitted from the data processing device and displayed in the image display device, and the communication rate of the wireless communication is controlled by decimating the

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updating of the image data at specific intervals when the communication rate exceeds a certain rate of the effective communication rate of the wireless communication.

Response to Arguments

13. Applicant's arguments filed July 8, 2004 have been fully considered but they are not deemed to be persuasive. The following are explanations to the applicant arguments:

1. Argument: Applicant alleges that the specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. The Examiner inserts that there is insufficient antecedent basis for the limitation "universal" as recited in claims 6, 16 and 17. However, it is respectfully submitted that the failure to provide explicit antecedent basis for terms does not always render a claim indefinite, and the mere fact that a term or phrase used in the claim has no antecedent basis in the specification disclosure also does not mean that the term or phrase is indefinite.

Explanation: Examiner respectfully disagrees because when examining the applicants application the claims must be addressed in view of the specification in order to give one of ordinary skill in the art at the time the invention was made the original intent of the applicant. No new matter is to be added to the application.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith T. Ferguson whose telephone number is (703) 305-4888. The examiner can normally be reached on 6:30am-5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (703) 308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Keith Ferguson 
Art Unit 2683
November 18, 2004